Let V_1, V_2 be a partition of the vertex set in a graph G, and let γ_i denote the least number of vertices needed in G to dominate V_i. We prove that $\gamma_1+\gamma_2 \leq \frac{4}{5} \mid V(G) \mid$ for any graph without isolated vertices or edges, and that equality occurs precisely if G consists of disjoint 5-paths and edges between their centers. We also give upper and lower bounds on $\gamma_1+\gamma_2$ for graphs with minimum valency δ, and conjecture that $\gamma_1 + \gamma_2 \leq \frac{4}{\delta+3} \mid V(G) \mid$ for $\delta \leq 5$. As δ gets large, however, the largest possible value of $(\gamma_1 + \gamma_2)/ \mid V(G) \mid$ is shown to grow with the order of $\frac{\log \delta}{\delta}$.